

Ozone Redesignation and Maintenance Plan Update

April 2002: Inter-Agency AQ TF Meeting



Redesignation to Attainment

Requirements for Redesignation

- Attainment of the NAAQS
- All Section 110 and Part D Requirements Met
- Fully Approved Ozone SIP
- Improvement in Air Quality Due to Implementation of Permanent and Enforceable Measures
- Fully Approved Maintenance & Contingency Plans



Maintenance Plan Elements

Key Elements of a SE-WI Maintenance Plan

- Emissions Inventories
 - Year Designated Nonattainment (1990)
 - Year of Monitored Attainment (1999-2001 DV)
 - Year of Modeled Attainment (2007)
 - 10 Years Beyond Attainment (2012)
- Demonstration of Attainment/Maintenance for 10 Years
- Commitment to Maintain Monitoring Network



Maintenance Plan Elements

Elements of SE-WI Maintenance Plan (Cont.)

- Verification of Continued Attainment
 - Legal Authority to Implement Measures
 - Tracking of Attainment
- Contingent Control Measures Plan
- Commitment for a Revised Maintenance Plan in 2010 for the period 2012-2022
 - (eight years out for years 11 through 20)



Redesignation to Attainment

Summary of Remaining Steps

- Resolve Contingency Issues w/ IN, IL and EPA
- Review Plan Outline with Stakeholders
- Complete Formal Redesignation Steps
 - Finalize Maintenance Plan Documentation
 - Finalize Base and Projection Inventories
 - Public Hearing Draft & Notice Target: April 30
 - 2 Hearings scheduled in June (if travel permitted!)



Redesignation Schedule - Legal Process

State Hearing

Early June 2002

Work w/ EPA on Submittal & Parallel

Processing

May/June 2002

EPA's Proposed

Approval

Summer 2002

EPA Comment Period

Late Summer 2002

EPA's Final Approval

Fall 2002 ?



Maintenance Plan Overview

- Monitored Attainment AQ at Critical Sites
- Pully-Approved Regional Ozone 1-Hr Attainment Plan & Complete SIP
- Showing that Real, Enforceable and Permanent Measures are basis for AQ Improvement (Maintenance Inventories)
- **6** Contingent Emissions Control Plan

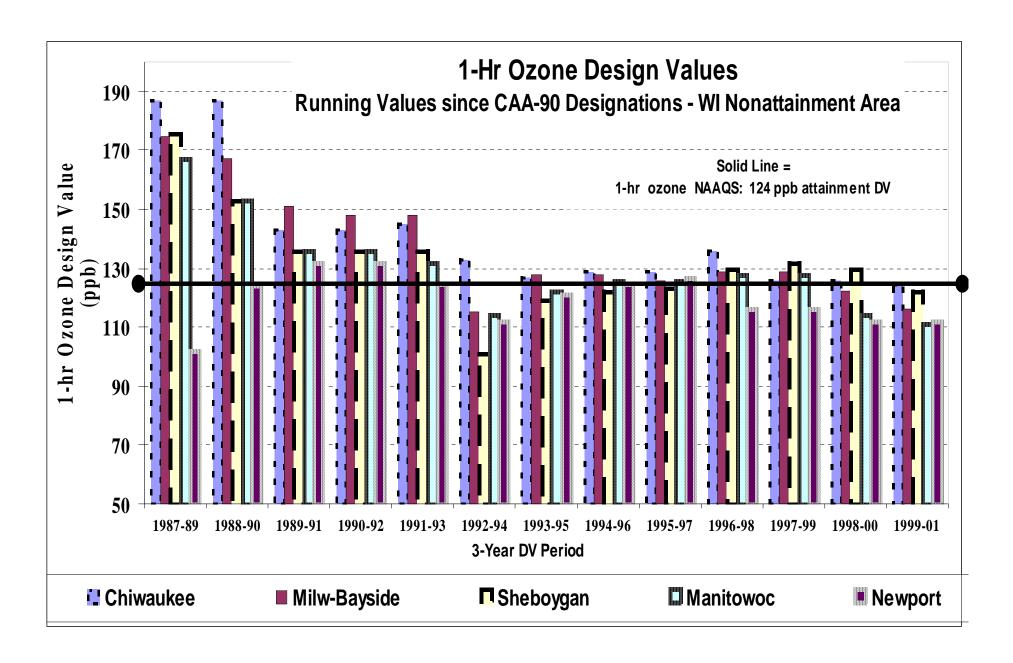


1 Monitored Air Quality

Monitored Ozone Air Quality Attainment:

- Meets 124ppb Design Value Limit for 1999-2002
- Design value is consistent with a Historic Regional Air Quality Trend
- Air Quality Maintenance is shown by 2007 Attainment Demonstration as well as projected maintenance inventories

Monitored Air Quality





2 Approved Ozone SIP and Related Programs

General Section 110 & Part D AQ Control Program (Subpart 1 and earlier CAA Sections)

- Approved Monitoring Program & Forward Commitment
- Approved Permitting Program
- Viable Inventory Reporting Structure
- General SIP Planning & Development and AQ Reporting Capability, Rules and Authority
- Appropriate Conformity Structures
- General Enforcement Authorities



2 Approved Ozone SIP and Related Programs

Approved WI Ozone Attainment SIP (Subpart 2)

- Specified WI Emissions Control Programs (92-94)
 - **I/M**
 - RACT
 - Stage 2 Vapor Recovery
- Additional WI Rate-of-Progress Components
 - Initial15% ROP Plan (1993/94)
 - 1999 and 2002-2007 ROP Plans
- Additional Modeled-Attainment Components (eg-regional controls assumed in the 2007 SIP)
 - NOx SIP Call and Section 126 Plans (Upwind States)
 - Newer federal measures



3 Maintenance Plan Inventories

Historic Baseline Emission Inventory(EI) - 1990

 Consistent with final CAA-90 designations initially based on 1987/88/89 Design Values, Baseline for Rate-of-Progress

Ozone Attainment Year Inventory – 1999 (or 2000 or 2001)

- 1999 most consistent with milestone/ROP timelines
- Not "extra" inventory effort preliminary work focused on 1999

Modeled Attainment Year Inventory - 2007

 Demonstration of Maintenance needs to be consistent with recently approved demonstration of attainment

Projected Maintenance Inventory - 2012 El

- 10 year maintenance demonstration
- Consistent assumptions (activity, controls and emissions trends)
 with the regional demonstration & adopted national programs



3 *Maintenance Plan Inventories*

Maintenance Inventory Problems/Issues

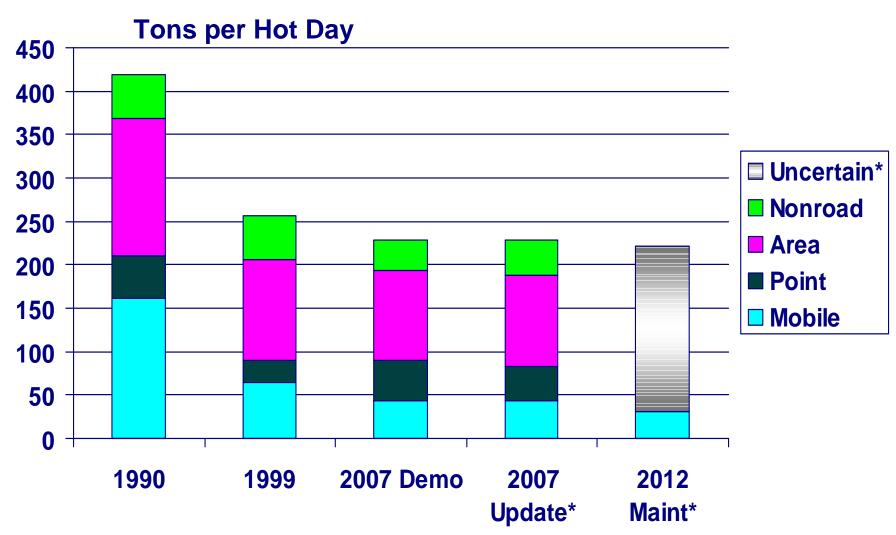
- New/Refined Inventory Techniques, Models & Inputs
- Differing Modeling vs Milestone vs ROP Inventory Approaches -Activity, Time-scales, & Geography
- Less prior Q/A & documentation on certain sectors means tougher to ensure maintenance in early years of 2000's
- Projection of activity growth & tiered controls through period (esp. nonroad)
- New Milestone and Conformity Assessment Year (2012) with Accelerated Development Effort
- Steep Inventory Learning Curve Accelerated Effort

Solutions

- Consistent approach where possible
- Some backcasting from "better" later year inventories



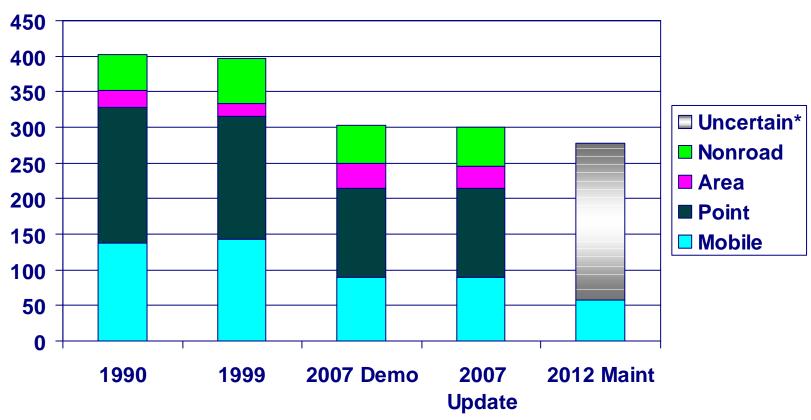
VOC Inventories - Work in Progress





NOx Inventories - Work in Progress

Tons per Hot Day





4 Revised Conformity Numbers

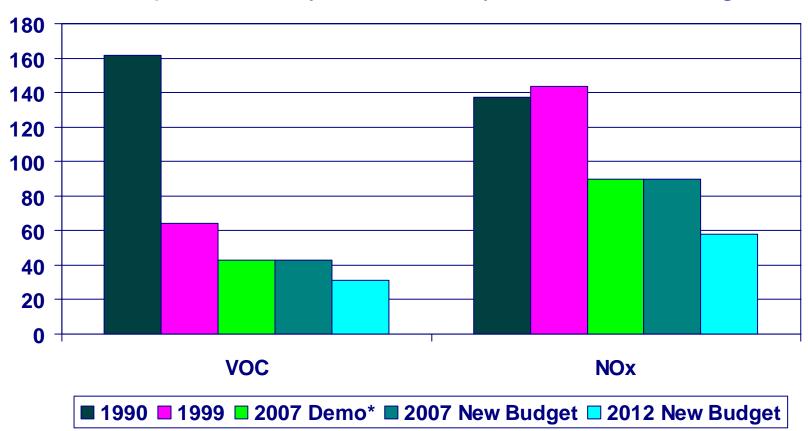
Adjusting Conformity Budgets & Updating TIP & Regional Transportation Plan Emissions Assessments

- ◆ Driver= RPO's must pursue proscribed assessments based on attainment (Phase 3) plan budgets during 2002 (18 month window - must complete at latest early in 2003)
- Interim Budgets for assessments revised in Maintenance Plan (MOB-5) - submit Jun-Jul, w/Aug-Sep "adequacy"
- Final maintenance plan budgets will be based on MOB-6 DNR submits Aug-Sep, w/ likely Nov-Dec approval
- March 15 & planned April 19 stakeholder dialogue getting RPO's, FHWA, EPA, DOT & DNR on same timelines



Draft Mobile Sector Inventories - Mobile 5

Tons per Hot Day - 10 County Emissions Budget





5 Contingency Measures Overview

Contingent Control Measures "The Contingency Plan"

- Measures Clearly Identified
- Need to Be Enforceable and Permanent
- Triggers or Process for Invoking Measures
- Primary Issues:
 - Geography of Trigger and Potential Control Areas
 - Timing and Scope of Contingent Responses:
 - Evaluations based on Elevated AQ or Emissions Levels
 - Depth/Breadth of Controls based on Violations
 - Speed of Control Effort Response



5 Contingency Measures Overview

Contingency Control Measures

- Earlier examples noted at stakeholder sessions:
 - Mobile On-Highway Stricter Freeway Speed Control
 - Mobile Off-Road Adoption of California Engine Regs
 - Area Adopt California Paint (AIM VOC Limits) Regs
 - Point NOx Control on Medium Size Boilers
 - Certain Specified & Quantifiable Voluntary Measures



6 Contingency Plan Approach

Regional Contingency Plan - Geography & Approach

- Commitments are made on a process and timing for contingent response - this is consistent in the regional redesignation requests
- Any added Controls triggered to address 1-Hr Ozone Maintenance will be chosen and focused through a regional (3 state) technical assessment & dialogue
- Triggered Technical Evaluations look at the aggregate
 Maintenance Area IL/IN/WI includes a 10 County WI area



6 Contingency Plan Commitments

Regional Contingency Plan - Commitments on Timing

- Commitments on Technical Evaluation Start & Duration
- Commitments on Speed of "Triggered" Contingent Emissions Control Program Implementation
- Sensitive to evaluation period (early vs later in decade)
 - Maintenance Plan is primarily based on continuing efforts already adopted at the state, regional & federal level
 - Retains flexibility to adopt a most appropriate control
 - Essentially, the later the year of identified control program need,
 the faster the control commitment window



6 Contingency Plan Commitments

Regional AQ & Emissions Trend Evaluations

- ◆ 2003-2004 Not triggered by Exceedance AQ Levels Continuing ROP commitment should provide off-ramp if violate
- 2005-2007 Triggered by 2 exceedances at any one site during that period
- 2008-2012 Triggered by 2 exceedances <u>or</u> a 5% regional inventory growth in reported 2005/2008 over 1999 maintenance inventory levels (VOC or NOx)
- Technical Evaluation drives dialogue on need for any targeted emissions control response in region



6 Contingency Plan Commitments

Contingent Emissions Control Programs (VOC &/or NOx)

- 2003-2007 Not "automatically" triggered by regional violations
- 2008-2012 "Automatically" triggered by violation
- Also, a "Possible Outcome" of the AQ and emissions evaluations triggered by exceedances during 2005-2012 ... if shown caused by excessive regional growth or escalating emissions trend



Contingency Plan - Listed Measures

| Period | Potential Contingency Measures in the Regional Maintenance Plan(s) | Sector |
|---------------|--|--------|
| 2003- 2004 | Implementing Rate-of-Progress Controls • No added Contingency Measures: -NOx SIPs, Fed Engine Regs, IN Refinery (BP), WI-NOx | NA |
| | Enhanced VOL(C) Storage RACT [IN] Phase 2 of NOx SIP Call | Point |
| 2005- 2007 | Fed Tier 2 Tailpipe Stds & Low Sulfur Fuel Heavy Diesel Stds & Low Sulfur Fuel Continued NOx I/M | Mobile |
| | Federal Tier 2 and 3 Engine Stds | NonRoa |

| Period | Potential Contingency Measures Regional Maintenance Plan(s) | Sector |
|-----------|--|---------|
| | Reinstate Offsets and/or LAER NSR (VOC) | Point |
| | RACT on Smaller Sources (VOC) | |
| | Tighten Existing RACT (VOC) | |
| | Expanded Geography for Existing Controls | |
| | New or added NOx Control Levels | |
| | Other measures to be identified | |
| | High-Enhanced I/M (eg-OBD-2) | Mobile |
| | California (CA) Vehicle Stds (beyond Tier 2) | |
| 2008-2012 | TCM's – incl area-wide ridesharing, telecommute, transit augments, traffic flow, etc. | |
| | Other measures to be identified | |
| | CA Engine Stds (earlier Tier 3) | NonRoad |
| | Other measures to be identified | |
| | CA AIM Coating Stds | Area |
| | CA Commercial/Consumer Product/Solvent Limits | |
| | Expanded Geography for Existing Controls | |
| | Other measures to be identified | |



Ozone Redesignation Questions?

WI-DNR Air Management Website:

- www.dnr.state.wi.us/org/aw/air/hot/1hr_redes/index.htm
- or, go to DNR Web, Bureau of Air Management, "Hot Topics"

Web Info:

- NR Board Memo(s) on Redesignation Process and Schedules
- Fall 2001 Presentation and Oct 25 Q&As
- Jan 2002 Update Presentation and a Contingency Plan Structure Proposal - Lake Michigan 1-Hr Ozone
- Soon April Maintenance Plan, Redesignation Outline, and Final Maintenance Inventories

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